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Safety Precaution

This STB has been designed and manufactured to satisfy the international safety standards. Please read the following safety precautions carefully before operating this receiver.

Main Supply:

Before operating, please check the units operating voltage is 90~240V AC 50/60Hz.

Overload:

Do not overload a wall outlet, extension cord or adapter, neither use damaged power cord or touch it with wet hand as this may result in electric shock.

Liquid:

The receiver shall not be exposed to dripping or splashing water, and that no objects filled with liquids, such as base, shall be placed on the apparatus.

Ventilation:

Keep the slots on top of the receiver uncover to allow sufficient airflow to the unit. Do not put the receiver on soft furnishings or carpets. Do not expose the receiver to direct light or do not place it near a heater or in humid conditions. Do not stack other electronic equipments on top of the receiver.

Cleaning:

Plug out the receiver from the wall outlet before cleaning. Clean the receiver by a soft cloth or mild solution of washing-up liquid (no solvents).

Connection:

Disconnect the receiver from the mains when you connect it to satellite LNB or disconnect it from LNB. Failure would possibly cause damage to the LNB

Location:

Put the receiver indoor in order to avoid lightening, raining or sunlight.

Uncover:

Do not remove the cover, to reduce the risk of electric shock. Contact qualified and licensed service personnel to repair the receiver, or contact your dealer.



1. Reference

1.1 General Features

MPEG-2 & Fully DVB Compliant

MPEG-2 Video (MP@ML), MPEG-1 Audio Layer1, Layer2

PLL RF-Modulator UHF 21~69 with PAL B/G,I,D/K

Multi LNB Control by DiSEqC 1.0,1.2,1.3

LNB Power 13/18V Max 500mA

SCPC/MCPC Receivable from C / Ku-Band Satellites

Digital Tuner with Loop-Through

2 Scarts for TV and VCR

PAL/NTSC Conversion

Variable Aspect Ratio (4:3,16:9) for TV

4-digi 7-segment LED Display

RS232 Port for Updating software and Additional Information

User Friendly OSD Menu with Full Function

256 Colors Graphic User Interface

Multi Language Menu (English / Italian / French / Spanish / Germany / Turkish / Arabic / Russian / Persian)

7-Days EPG (Electronic Program Guide) for On-Screen Channel Information

MP,multi picture. PIP,picture in picture. REC,short record(10 seconds)

Super fast 800 pages OSDTeletext Supported and VBI Teletext Inserted

Favorite Channel and Parent Lock Function

Storing 6000 Channels.

ZOOM function



1.2 Accessories

User manual

Remote Control Unit

A/V Cable

Batteries

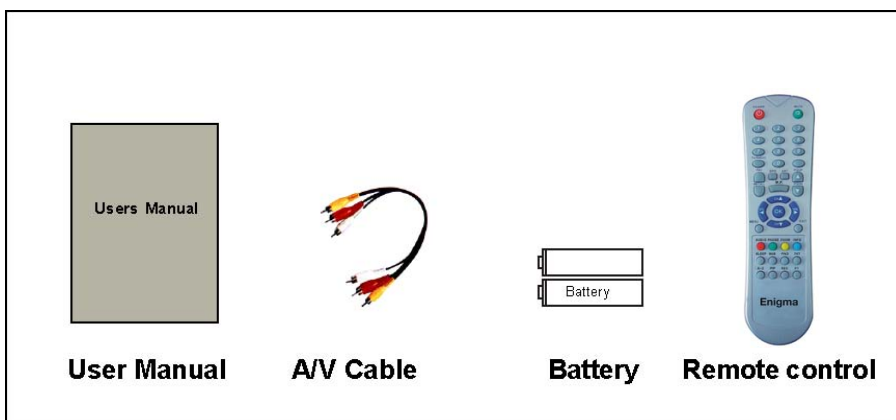
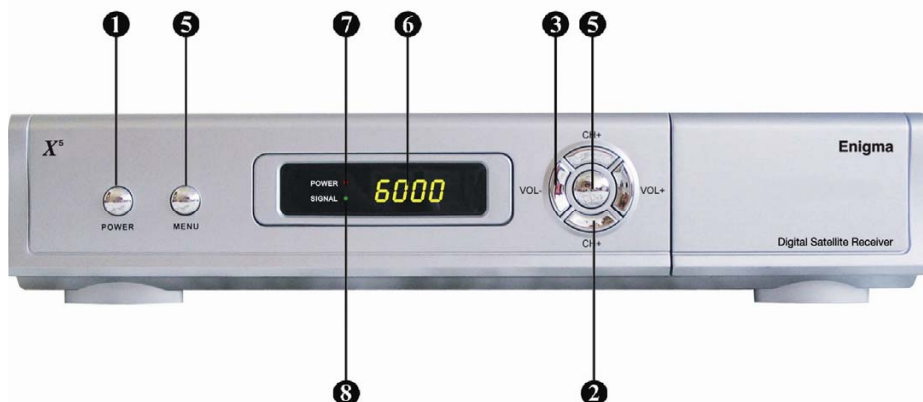


Figure 1. Accessories



2. Basic Function

2.1 Front Panel

1. Power Button

The POWER button is used to turn the power on or to make it on Standby Mode.

2. Up/Down Button /

Change channel in viewing mode and move the cursor up/down in menu mode.

3. Left/Right Buttont /

Increase / decrease the volume in viewing mode and change settings in menu mode

4. OK Button

Activate the highlighted sub menu in menu mode and activate the channel list in viewing mode.

5. MENU Button

Activate the main menu in viewing mode, or exit all menu.

6. Display (4-digi 7-segment)

4-digi displays channel information. In Standby mode the 7-segment displays local time.

7. Power LED



Power indicator

8. Signal LED

Signal Indicator



2.2 Rear Panel

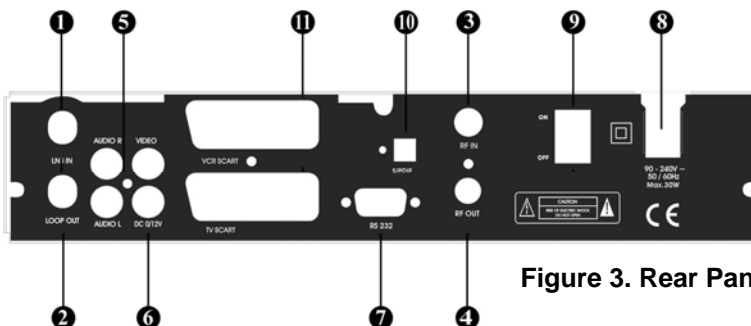


Figure 3. Rear Panel

1. LNB IN 13/18V 500mA Max

Connect the Satellite Dish LNB.

2. LOOP OUT

Output the Dish LNB IN signal.

3. RF IN

Connect to the antenna of TV to Aerial IN.

4. RF OUT

Connect to conventional TV.

5. AUDIO, VIDEO

Connect to Audio/Video of TV.

6. 0/12V

Supply 12V DC to other apparatus.

7. RS232

Connect to serial port of PC for software upgrade.

8. Electric Inlet Lead

Mains 90~240V AC (Auto selectable), 50~60Hz, Make sure to check the power spec.

9. Power

AC Power Switch.

10.S/PDIF

Output for connection to a digital amplifier.

11.TV SCART/VCR SCART

Connect to TV set or VCR with Scart cables.



2.3 Remote Control Unit(RCU)

You can control this receiver by this remote controller with full function.

1. POWER :

Switch the receiver on or set it to standby mode.

2. MUTE:

Turn the sound On/Off.

3. NUMERIC KEY (0~9):

Change program or input number.

4. RECALL:

Move to the previous viewed channel.

5. INFO:

Show the information of the current channel.
press EXIT button to exit this menu.

6. MENU:

Activate main menu or exit to live channel.

7. EXIT:

Exit current menu step by step.

8. CH/:

Change program.

9. VOL/:

Change volume in viewing mode.

10. OK:

Confirm the highlighted menu item. Open the program list.

11. SAT:

Show the scanned satellite list. 12. FAV: Display favorite channel list.

13. TV/RADIO

Switch between TV and RADIO.

14. PGUP, PGDN:

Page up/down on menu.

15. EPG (Electronic Program Guide):

Show the TV/Radio program guide.

16. ZOOM:

Picture Zooming function.

17. AUDIO:

Select or change the Audio.

18. TXT:





Show the teletext content if teletext is transmitted.

19.PAUSE:

Freeze the picture.

20.SLEEP:

Sleep timer function

21.SUB:

Subtitle.

22.FIND:

Find Channel by channel name.

23.PIP:

Picture in Picture.

24. REC:

Record and playback 10 seconds.

25.M.P.

Multi picture.



3. Installation and Connection

The following diagram shows you the connections among receiver, TV, VCR, LNB and other equipment, please read this first if you are not sure about the connection, and it will guide you to the correct connection.

3.1 Connecting to TV & VCR

1. Connect the TV antenna to AERIAL IN.
2. Connect the RF-IN of TV to RF-OUT.
3. Connect the Video and Audio of TV to the Video and Audio. Connect Red and White connector to Audio R and Audio L, and Yellow into Video port respectively.
4. Go to section 3.2 Connecting to Dish, then connect your dish.

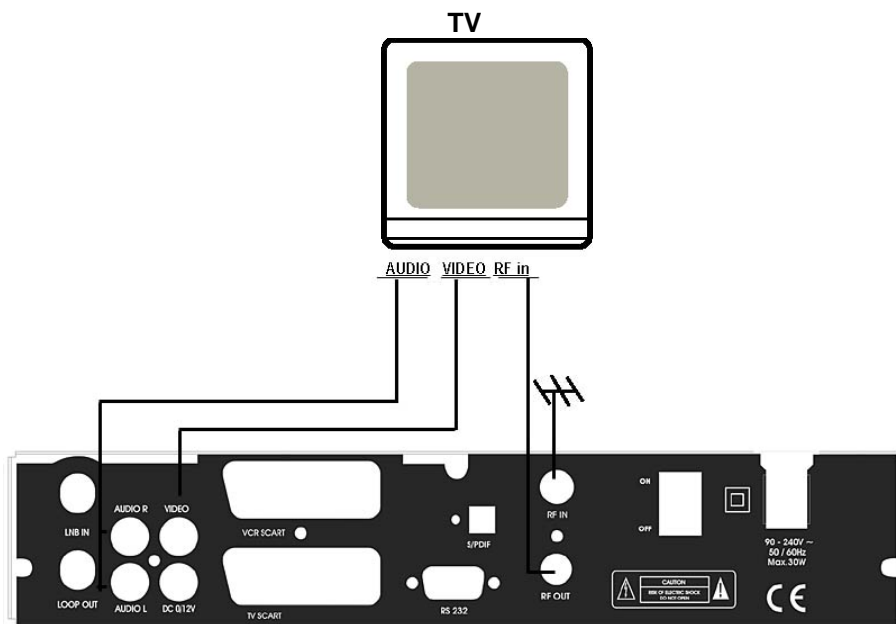


Figure 5. Connecting to TV & VCR



3.2 Connecting to Dish LNB

You can connect one fixed dish LNB directly to the LNB IN, or connect at least two dish LNB by DiSEqC Switch, you can also connect to HH mount dish LNB.

1. Connect the TV antenna to AERIAL IN.
2. Connect the RF-IN of VCR to RF-OUT with RF cable.
3. Connect the RF-OUT of VCR to the RF-IN of TV.
4. Connect the Video and Audio of TV to the Video and Audio. Connect Red and White connector to Audio R and Audio L, and Yellow into Video port respectively.

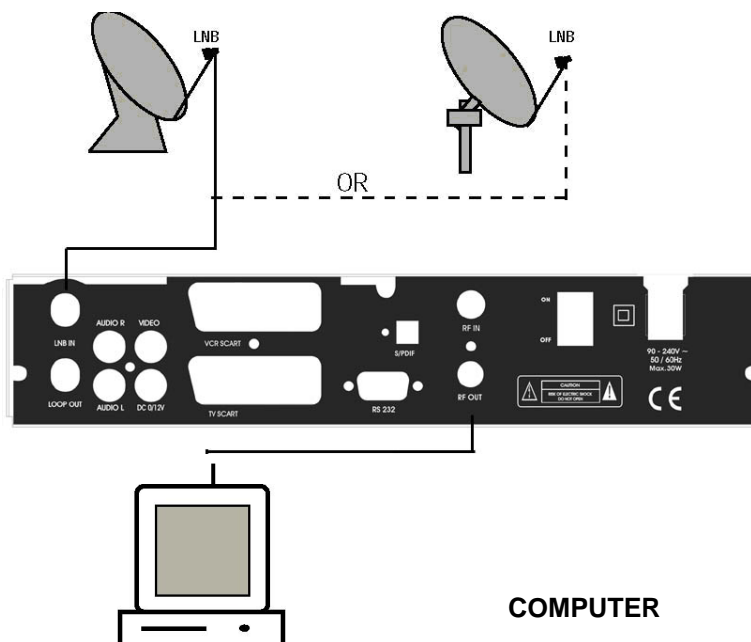


Figure 6. Connecting to Dish LNB



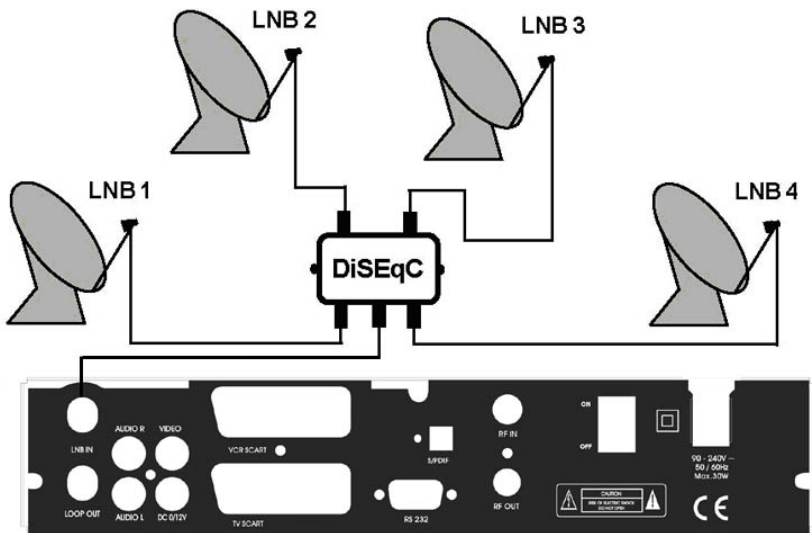


Figure 7. Connecting to Dish LNB



4. Installation and Operation

After connecting the receiver to other required equipment, turn on the receiver, there should be no channel information available at the first startup, you need to follow the procedure to setup your receiver to search the channel.

4.1 Menu Guide

During the installation there is a short information showed at the bottom of the menu screen which will guide you to set up, after finishing installation, you can enjoy watching TV or listening Radio.

--Main Menu--

Press **MENU** button to activate main menu which consists of



Use **RIGHT/LEFT** ◀/▶ button to select your subject and press **OK** to confirm your selection and enter that sub menu, press **EXIT** button you can return to the previous menu.

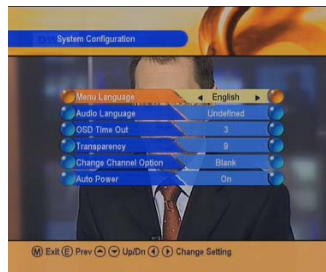


Here you can setup **System Configuration, TV Output , Parental Control , System information , Time Setup and Timer .**



A: System Configuration

Select **System Configuration** and press **OK**, you will get this window. Here you can change **Menu Language**, **Audio Language**, **OSD Time Out**, **Transparency**, **Channel Option** and **Auto Power**



B: TV Output

You can setup TV Type as PAL or NTSC, Screen Type as 4:3 or 16:9 or other format and RF.



C: Parental Control

You can select if need the password or not for Installation, Edit Channel, System, also you can change the password, the default password is 0000.



D: System information

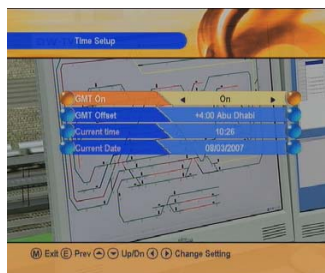
This menu show some information about the product, such as Product Name, Software Ver, Loader Ver and so on.





E: Time Setup

When you Enable this option, and press OK, you will get this window to setup time, at GMT on item, if select on, you can go to the second item to change GMT offset which you want. Or you select off GMT. You can go to the third item to input your local time.



F: Timer

Here you can set your favorite channel to begin broadcasting at future time you set, including both TV and Radio, you can add, edit and delete the event you set.



In this menu, you can setup Antenna, and Search channels. And Reset the system.



A: Antenna Setup

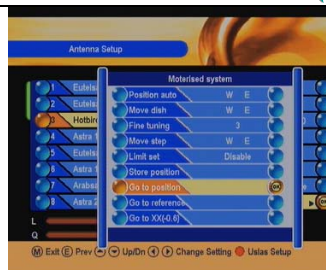
Press right button on RCU and move to the antenna setting, here to setup the correct LNB frequency, switch Type (None, port 1...port 4, burst A, burst B, Auto).





Motor

If you connect receiver to DiSEqC1.2 or DiSEqC1.3 antenna, set motorized system to DiSEqC1.2 or USALS, Here press OK button to enter motor system.



Position Auto [W/E]

Press ◀/▶ button, the dish will be motorized to East/West continuously, it will stop until it find the best signal.

Move Dish

Push ◀/▶ button, the dish will be motorized to East/West step by step until you find the best signal showed on the signal bar.

Fine Tuning

Set the moving step.

Move Step

Move East or West step by step.

Limit Set

Disable or enable West limit or East limit

Store Position


Save the current position you searched.

Go to Position

Press OK button to move the dish to the stored position.

Go to Reference

Press **OK** button to move the dish to 0 position.

 Press **EXIT** after setup, and you can search channel now.





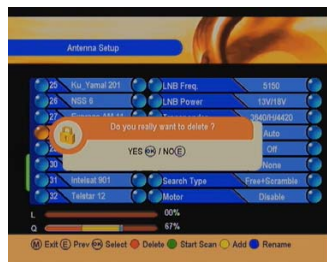
USALS Setup

If you use USALS, Press **RED** key to setup you Local parameters.



A-1 :Delete

Press **RED** key to delete the selected sat, then will show a window ask you to confirm. Select **OK** confirm and **EXIT** to abort this action.



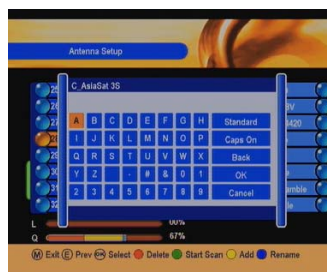
A-2 : Add

Press **Yellow** key to add new satellite.



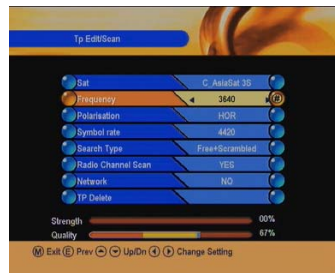
A-3 :Rename

Press **BLUE** key to rename current satellite name.



A-4 :Start Scan

Press **GREEN** key to go to Satellite Scan menu to search channels.



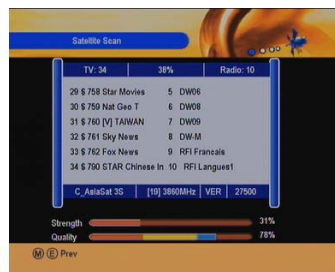
B: Satellite Scan

In this menu you can set scan mode and which type of channels you want to search by **RIGHT/LEFT** **UP/DOWN**. Then Press **OK** to start search.



B-1: Search Channel

In this menu you can see the search Result. During searching the TV channel and Radio channel will be listed separately.



C: Tp Edit/Scan

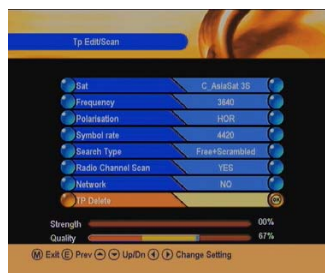
Here you can Edit the transponder and scan channel.





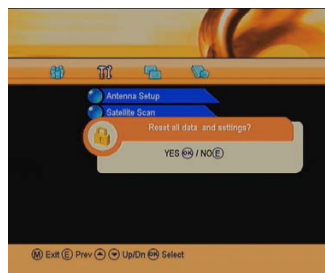
Tp Delete

If you want to delete tp, go to the Tp delete item ,and press **OK** Button.



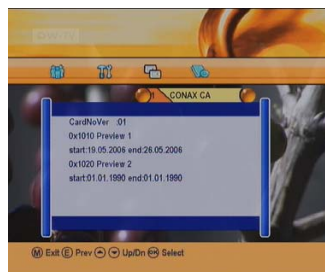
D: Factory Reset

Press **OK** to Reset the STB system, to load default setting and channel list.



A: CA Menu

This message will appear after you insert the CA Card

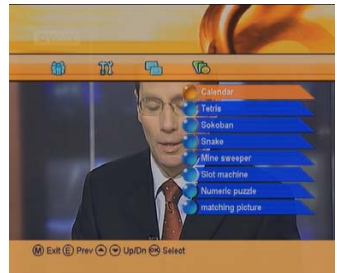




You can play the game in this sub-menu.
Press **UP/DOWN▲/▼** and **OK** button.

A: Calendar

This is the calendar, and it will give you the convenience to check the date of your day.



B: Tetris

You can see play Tetris on the screen.
Press **RIGHT/LEFT ◀/▶** **UP/DOWN▲/▼**
to play.



C: Sokoban

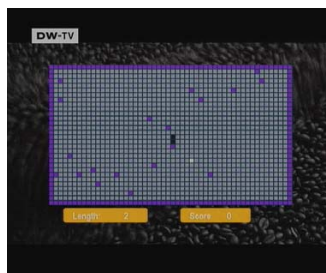
You can see play sokoban on the screen.
Press **RIGHT/LEFT ◀/▶** **UP/DOWN▲/▼**
to play.





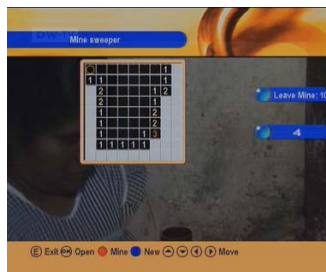
D: Snake

You can see play Snake on the screen.
Press **RIGHT/LEFT** ◀/▶ **UP/DOWN** ▲/▼
to play.



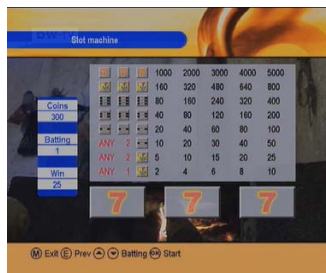
D: Mine sweeper

You can see play Snake on the screen.
Do follow as bottom help.



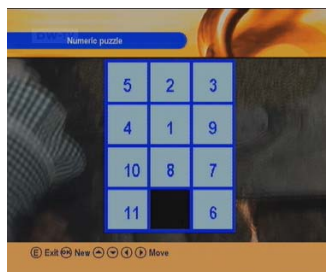
E: Slot machine

You can see play Slot Machine on the screen.
Do follow as bottom help.



F: Numeric puzzle

You can see play Numeric puzzle on the screen.
Press **RIGHT/LEFT** ◀/▶ **UP/DOWN** ▲/▼ to
play.



G: matching picture

You can see play matching picture on the screen.





4.2 Other Useful Information

📄 This will guide you on how to use general info while watching TV program or listening Radio program.

🔑 General Information

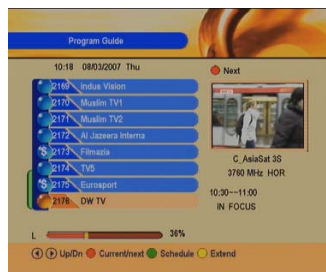
📄 In the viewing mode when you press **INFO** button to view the detailed program info.



🔑 Program Guide

📄 Press **EPG** button on remote control, you can get the electronic program guide if applicable. Press **▲/▼** and press **GREEN** key to show the electronic program guide of the selected channel.

📄 You can get the detailed information about that program by pressing **INFO**.



☛ Channel List-OK

In viewing mode press **OK** , **FAV** button and you will get this window.



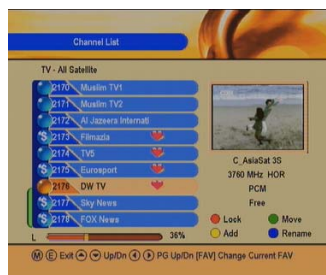
a. Favor Group

Press **RED** key go to this menu. **OK** to set favorite .And press **◀▶** to Favor Group list to change current FAV.



b. Channel Edit

Press **GREEN** key go to this menu. You can Press **RED, GREEN, BLUE** key to Lock, Move, Rename the channel. Also you can press **YELLOW** key to add new channel.



c. delete

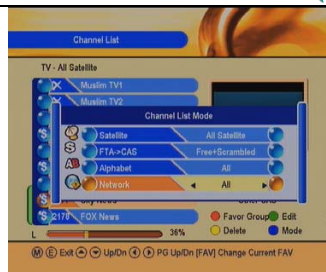
Press **YELLOW** key go to this menu. You can Press **RED, GREEN, YELLOW** key to sign delete channel one by one ,or by transponder or by satellite.





b. Channel mode

Press **BLUE** key. In this menu ,you can select the mode you channel list.



AUDIO

In viewing mode press **AUDIO** button and you will get this window. You can set the Audio mode here.



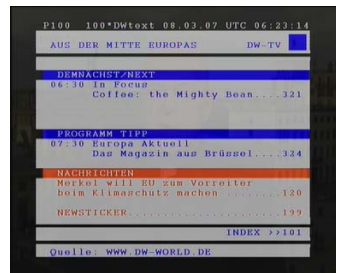
SAT

Press **SAT** button on the remote control, you will get this menu which contains the satellites you searched and stored, press **▲/▼** to switch between satellites you searched, all channels will be listed under that satellite you selected.



🔑 **TEXT**

📄 Press the **TEXT** button and you will get a window to view the teletext contents if the teletext is transmitted in the channel. The Teletext content is watchable by OSD even your TV does not support the Teletext.



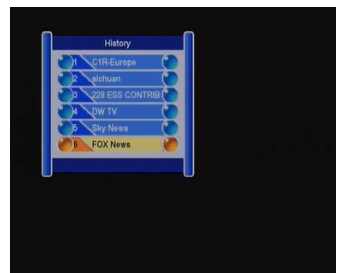
🔑 **PAUSE**

Freeze the picture



🔑 **RECALL:**

Press recall button you will get the viewing history of last 16.





☛ ZOOM:

Picture Zooming function.



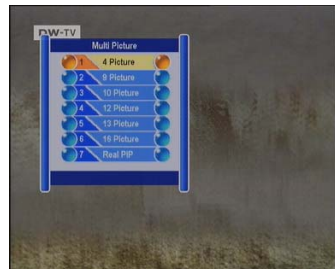
☛ TV/RADIO:

In this window you can select channel and delete/undelete channel, rename channel, sort channel, move channel, lock channel, skip channel, set favor channel. Select Channel Manager, you will get this window.



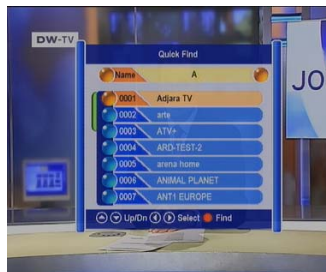
☛ M.P.: Multi picture

In viewing mode ,press **M.P.** you will get the multi picture selection ,select one and press ok ,multi picture will be displayed. Move up/down, left/right to select channel, press **M.P.** again to get that selected channel pop out and it is living ,press ok to display it in full screen or exit to select other channel.



☛ **FIND:**

In this menu ,you can Find Channel by channel name.



☛ **PIP : picture in picture**

You can press **PIP** to enter PIP mode, then press **F1** to exchange between big picture and small picture. Press PGUP/ PGDN to change the channel of small picture, by left, right, up and down button you can move the position of small picture. Also press **EXIT** key to exit PIP mode.



☛ **F2 : Subtitle**

Showing Subtitle information if the channels contains.



☛ **REC: Short Record**

You can press **REC** to enter Short Record mode, then press **RECALL** to play back. Then press **EXIT** key to exit Short Record mode.



5. Additional Information

5.1 Problem Solving

You might meet abnormal working of this STB with various reasons, check the following which may help you.

Problem	Possible causes	What to do
LED on the front panel fail to light up/is not lit.	Mains supply cable is not connected.	Check if the mains supply cable is plugged into the power socket.
No picture or sound.	Satellite dish is not aiming to satellite accurately. No signal or weak signal. The LNB is faulty. The cable is faulty.	Adjust the dish. Check the signal strength indicator in one of the channel search submenus. Check the cable connections, LNB and other equipment connected to LNB & receiver, or adjust dish. Replace the LNB. Replace the cable.
Bad picture/blocking error.	Satellite dish is not aiming to the satellite accurately Signal too strong. Satellite dish is too small. LNB noise factor too high. The LNB is faulty.	Adjust the dish. Connect a attenuator to LNB input. Change to a larger dish. Change LNB with lower noise factor. Replace the LNB.
No startup menu on screen after turning on STB for the first time.	The system is connected by SCART cables and the TV is not in AV/EXT mode.	Switch the TV to the appropriate AV input.
The remote control is not working.	Battery exhausted. Remote control is not aimed correctly STB is in standby mode.	Change the batteries (both). Aim the remote control at the STB. Check that nothing blocks the front panel. Check if LED indicator on the front panel is showing the time, press the power button to switch off standby mode.
You have forgotten your password.		Contact the dealer or Service Provider. They will help you set it up again.
Poor picture quality or less channels in scanning.	Low LNB power or signal loss in cable.	Change the LNB power to 14V/19V in Antenna setup menu.



5.2 Technical Specification Tuner & Demodulator

Frequency Range	950 MHz to 2150 MHz
Input Connector	F-type, IEC 169-24, Female
Signal Level	-25 to -65 dBm
RF Impedance	75Ωunbalanced
IF Band width	55 MHz/8Hz(Per 5MSPS)
LNB Power &	Vertical : +13 V, 14V +/-5%
Polarisation	Horizontal : +18 V, 19V+/-5% Current : 500 mA Max. Overload Protection
LNB Tone Switch	22KHz+/-2KHz, 0.6Vpp+/-0.2V
DiSEqC Control	Version 1.0/1.2 Compatible, Tone burst A/B
Demodulation	QPSK
Symbol Rate	1~45Ms/s/SCPC,MCPC
FEC Decode	Convolutional Code Rate 1/2, 2/3, 3/4, 5/6 and 7/8 with Constraint Length K=7

MPEG

Transport Stream	MPEG-2 ISO/IEC 13818Transport stream specification
Profile Level	MPEG-2 MP@ML
Input Rate	15 Mbit/s Max
Aspect Ratio	4:3, 16:9
Video Resolution	720 x 576(PAL), 720*480(NTSC)
Audio Decoding	MPEG/MusiCam Layer I & II
Audio Mode	Single channel/Dual channel/Joint stereo/Stereo
Sampling	32, 44.1 and 48 KHz

A/V and Data In/Out Connector

TV SCART	RGB, CVBS, L, R out
VCR SCART	CVBS, L, R out, AUDIO L, R.
3RCA	AUDIO L, R. VIDEO out.
RS-232C	RS232C D-sub male type.
LNB IF Input	F type, IEC 169-24 Female
LNB IF Output	F type, IEC 169-24 Female

RF-Modulator

RF Connector	75ΩIEC169-2, Male/Female
RF Frequency	470MHz-860MHz
Output Channel	CH21-69
TV Standard	PAL B/G, I, D/K Selectable

Power Supply

Input Voltage	90 - 240V AC, 50/60 Hz
Power Consumption	Max. 25 W
Protection	Separate internal fuse. Input shall have lightning Protection

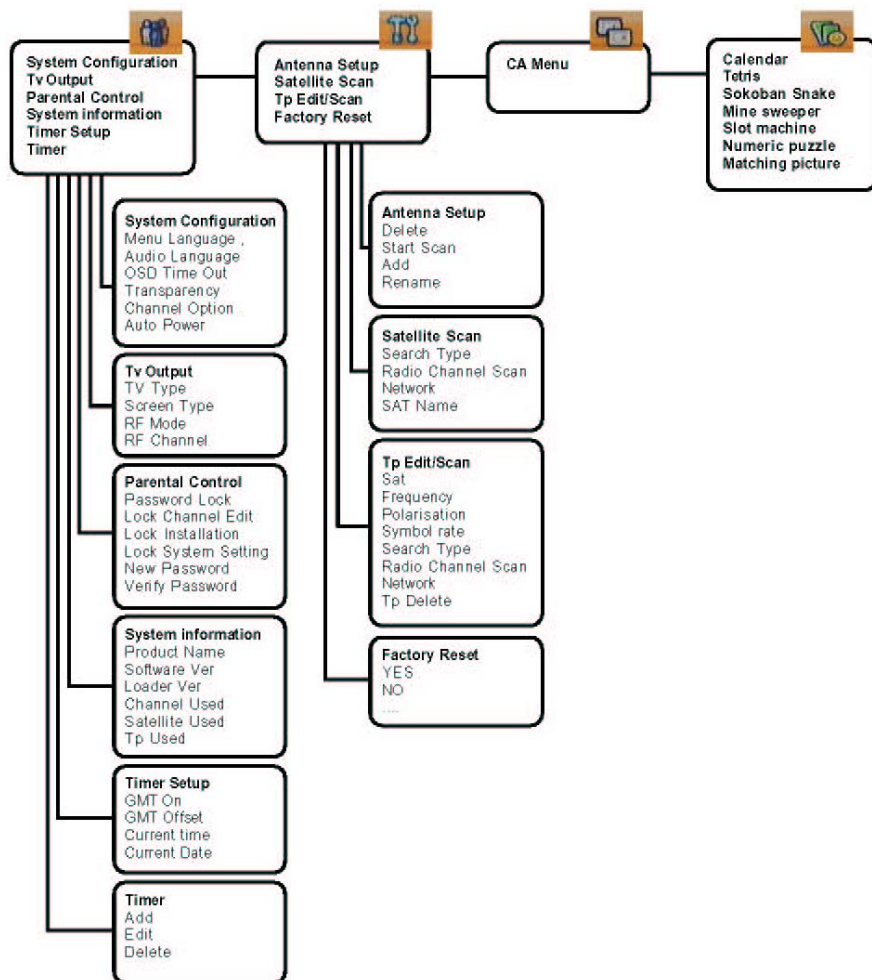
Physical Specification

Size (W x H x D)	280 x 55 x 235 mm
Weight (Net)	Around 2.0 kg
Operating Temp	0°C to + 40°C
Storage Temp	-40°C to + 65°C



5.3 Menu Screen Structure

Menu Navigator



5.4 Glossary

Antenna

A device that collects and radiates electromagnetic waves. Includes a satellite dish and a broadband antenna.

DiSEqC

DiSEqC(Digital Satellite Equipment Control)system, it is a communication bus between satellite receivers and peripheral equipment using only the existing coaxial cable.

DVB

The Digital Video Broadcast group was created to establish a technical framework for the introduction of digital video broadcasting systems.

LNB (low-noise block converter) or LNBF

An electronic unit mounted on the satellite dish. It receives the signals reflected by the dish and converts them to signals that can be used by the digital satellite receiver.

GHz

The prefix giga means milliard, and Hertz means cycles per second. Signals in the GHz range are often called microwaves.

MHz

The prefix mega means million, and Hertz means cycles per second.

MPEG

Moving Picture Experts Group. Established by the International Standards Organization to provide the basis for a picture coding and compression system.

Forward Error Correction(FEC)

A system of error control for data transmission.





PID(Packet Identifier)

A set of numbers that identifies transport stream packets containing data from a single data stream.

Polarization

Polarization allows several programs to be fit into the same frequency band. The signals from a satellite are transmitted either with linear (vertical or horizontal) polarization or circular (right or left) polarization.

QPSK(Quaternary Phase Shift Keying)

Phase-shift keying in which four different phase angles are used.

Transponder

An automatic device that receives, amplifies and retransmits a signal on a different frequency.

Symbol rate

Speed of the digital transmission

RF

Radio frequency (known as HF in some countries).

Scrambled TV programs

Some TV programs are transmitted in scrambled form.

SERIAL RS 232

A serial communication standard data port.

RCA

Coaxial connector used to connect the receiver to an external amplifier.